CLAIMS:

1. A method of recording information on an optical record carrier, where optically readable marks are formed on the optical record carrier by recording pulses applied to a recording surface of the optical record carrier at a recording power level of an irradiation beam, and where optically readable lands are formed by intervals between the recording pulses at a bias power level of the irradiation beam; where during a recording process the bias power level is set at a reading power level to read pre-recorded information written on the optical record carrier characterized in that the reading power level is determined by at least one of the parameters: the recording power level and recording speed.

2. A method as claimed in claim 1, where the reading power level P_{read} is determined by an equation $P_{read} = k*P_{rec}$ where k is a multiplication constant and P_{rec} is the recording power level.

3. A method as claimed in claim 2, where the multiplication constant k is in the range from 0.02 to 0.2.

4. A method as claimed in any of the above claims, where the bias power level of the intervals between the recording pulses is first set at a cooling power level and then at the reading power level, where the cooling power level is below the reading power level.

5. A method as claimed in claims 1 or 2 or 3, where the bias power level of the intervals for forming the shortest lands is set at a cooling power level, and where the bias power level of the intervals for forming longer lands is first set at the cooling power level and then at the reading power level; where time length of the lands, expressed in the time length of one period of a reference clock in a data signal, is determined by a run-length-limited code sequence.

6. A device for recording information on an optical recording carrier, comprising:

- recording means for writing a pattern of optically readable marks and lands on the optical record carrier by irradiating a recording surface of the optical record carrier with an irradiation beam;

- reading means for reading, during a recording process, pre-recorded information written on the optical record carrier and supplying a read signal;

- processing means for converting input information to be recorded into an output signal supplied to the recording means, the output signal representing the input information and corresponding to recording pulses and intervals between the recording pulses;

characterized in that the processing means is arranged to determine a reading power level of irradiation for reading, during the recording process, the pre-recorded information written on the optical record carrier, where the reading power level is determined by at least one of the parameters: the recording power level and recording speed.

7. A device as claimed in claim 6, comprising storage means for storing a formula for determining the reading power level in dependence with at least one of the parameters: the recording power level and recording speed.

8. A device as claimed in claim 7, where the storage means comprises a multiplication constant k such that $P_{read} = k*P_{rec}$, where P_{rec} is the recording power level and P_{read} is the reading power level.

9. A device as claimed in claim 8, where the multiplication constant k is in the range from 0.02 to 0.2.

10. A device as claimed in claims 6, 7, 8 and 9, where the recording means is operative to first set the bias power level of the intervals between the recording pulses at a cooling power level and then at the reading power level, where the cooling power level is below the reading power level.

11. A device as claimed in claims 6, 7, 8 and 9, where the recording means is operative to set the bias power level of the intervals for forming the shortest lands at a cooling power level, and where the recording means is operative to first set the bias power level of the intervals for forming longer lands at the cooling power level and then at the

reading power level; where time length of the lands, expressed in the time length of one period of a reference clock in a data signal, is determined by a run-length-limited code sequence.

12. An optical recording carrier susceptible for forming a pattern of optically readable marks and lands by an irradiation beam, comprising a substrate, control information, an information recording area, where the information recording area includes pre-recorded information, characterized in that the control information includes a formula for determining a reading power level of the irradiation beam for reading the pre-recorded information during a recording process, where the reading power level is determined by at least one of the parameters: recording power level and recording speed.

13. An optical recording carrier as claimed in claim 12, where the pre-recorded information is stored in a periodic track modulation of the information recording area.

14. An optical recording carrier as claimed in claim 13, where the frequency of the periodic track modulation is modulated with a digital position-information signal.

15. An optical recording carrier as claimed in claim 12 or 13 or 14, where the control information on the substrate comprises a multiplication constant k such that $P_{read} = k*P_{rec}$, where P_{rec} is the recording power level and P_{read} is the reading power level.

16. An optical recording carrier of claim 15, where the multiplication constant k is in the range from 0.02 to 0.2.